

Integrated GPS Radio System (IGRS)

Purpose: The Integrated GPS Radio System (IGRS) is a position-location-information (PLI) system developed by Stanford Research Institute (SRI) International to meet Marine Corps and other service PLI needs.

Background: The Lab has used IGRS during live-force experimentation, for data collection and analysis, since the Hunter Warrior Advanced Warfighting Experiment in 1997. IGRS I has been successfully used during several experiments, while IGRS II, which is currently under development, takes advantage of recent technological advances. The Lab currently owns over 500 IGRS I units and will procure 60 IGRS II units during fiscal year 2004.

Description: IGRS consists of individual VHF radio units, which transmit PLI for display at a PC-based control station. IGRS units are very compact (IGRS I units weigh 5 lbs and IGRS II 2.5 lbs) and can be mounted on vehicles and on individual personnel.



IGRS can be used to:

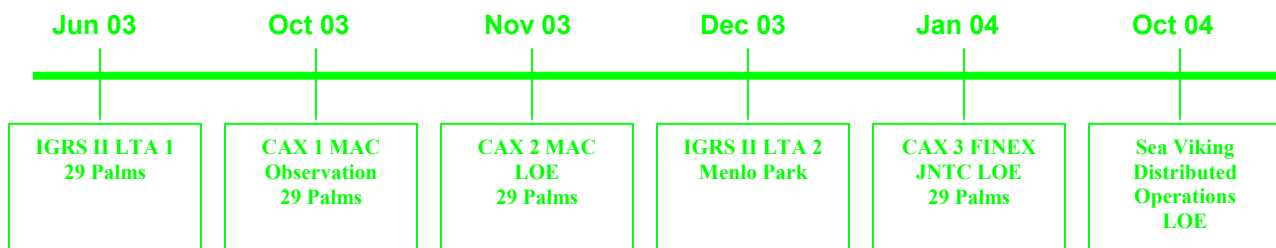
- Determine ground-truth for event reconstruction
- Simulate effects of fires
- Track movement of troops and vehicles
- Apply exercise controls
- Enhance personnel safety

IGRS II will also serve as an experimental system to gain insight as to how PLI should be used by operating forces. IGRS II will use a combination of legacy line-of-site technology, in addition to exploiting emerging OTM/OTH technology.

The Lab is also using IGRS, during several CAX events, to assist TECOM in meeting Joint National Training Capability objectives. Efforts focus on event reconstruction for after action reviews. The Lab will also help TECOM examine the feasibility of broadcasting CAX event data to external locations to help establish a more productive joint virtual training environment.

Deliverable Products: Commanders will likely place even greater reliance on PLI in the future. The Lab will continue to use IGRS as a test bed to further expand on its ground-truth recording and event reconstruction capabilities. In addition, the Lab will conduct experiments to help resolve tactical friendly-force PLI management issues.

Milestones:



Action Officer: 432-1039